



## APPENDIX

### VERSION WITH MARKINGS TO SHOW CHANGES MADE

The following claims have been marked to show insertions (underlined) and deletions (strikethrough):

1. (Amended) A method of microwave assisted chemical analysis comprising,  
providing a sample within a vessel,  
heating said sample by microwave energy to volatilize at least a portion of said sample to establish a gas phase,  
cooling said gas phase while continuing to heat said sample by said microwave energy, and  
after removal of at least a portion of at least one of said gas phase and said unvolatilized portion of said sample analyzing the unvolatilized portion of said sample to determine the composition of said unvolatilized portion.
2. (Amended) The method of claim 1 including  
employing a ~~said~~ sample containing silicon, and  
said unvolatilized portion including trace elements which were contained in said silicon containing sample.
4. (Amended) The method of claim 1 including  
performing said process in a closed ~~said~~ vessel.
6. (Amended) The method of claim 1 including  
employing ~~as said vessel~~ a vessel which has portions which are transparent to microwave energy.
8. (Amended) The method of claim 2 including  
employing a vessel with at least two compartments in communication with each other,  
introducing a silicon containing sample and a first acid into a first ~~said~~ compartment, and  
introducing a second acid into a second ~~said~~ compartment.
10. (Amended) The method of claim 9 including

distilling said hydrofluoric acid out of said second compartment and  
into said first compartment, and

distilling  $\text{SiF}_4$  out of said first compartment and into said second  
compartment.

11. (Amended) The method of claim 1 including  
employing ~~as-said~~ microwave energy of a frequency of about  
27 to 2450 megahertz.

12. (Amended) The method of claim 11 including  
employing a ~~said~~ vessel composed of a fluoropolymer.

14. (Amended) The method of claim 1 including  
during said heating process introducing additional sample into said  
vessel.

15. (Amended) The method of claim 14 including  
said process being a continuous process.

17. (Amended) The method of claim ~~4~~ 8 including  
during said process introducing additional said sample into said  
vessel.